

WASHINGTON SUBURBAN SANITARY COMMISSION

SPENDING AFFORDABILITY FISCAL YEAR 2019 Meeting #1

September 7, 2017

REVENUES AND EXPENDITURES - IMPACT ON ADOPTED CHARGES

WATER AND SEWER PROGRAM COMBINED OPERATING FUNDS

| Base Case | | FY 2018 | FY 2019 | Dollar | W&S Rev |
|-----------------------|---------------------------------------|------------|------------|-----------|---------|
| (In Thousands \$000s) | | Approved | Estimated | Change | Impact* |
| 1 | OPERATING REVENUES | | | | |
| 2 | Adopted Water and Sewer Charges | \$ 600,902 | \$ 600,902 | \$ - | 0.0% |
| 3 | OPERATING EXPENSES | | | | |
| 4 | Salaries and Wages | \$ 120,276 | \$ 125,688 | \$ 5,412 | 0.9% |
| 5 | Heat, Light, and Power | 22,015 | 22,675 | 660 | 0.1% |
| 6 | Regional Sewage Disposal | 53,617 | 53,617 | - | 0.0% |
| 7 | All Other | 242,177 | 244,598 | 2,422 | 0.4% |
| 8 | Operational Improvements | - | 6,000 | 6,000 | 1.0% |
| 9 | DEBT SERVICE | 257,071 | 281,174 | 24,103 | 4.0% |
| 10 | PAYGO (Contribution to bond fund) | 30,193 | 36,958 | 6,765 | 1.1% |
| 11 | | \$ 725,348 | \$ 770,711 | 45,363 | 7.5% |
| 12 | REVENUES | | | | |
| 13 | Other Sources and Fees | (104,466) | (104,738) | (272) | 0.0% |
| 14 | OTHER TRANSFERS AND CREDITS | (19,980) | (27,968) | (7,988) | -1.3% |
| 15 | Total - Base Case Revenue Need | \$ 600,902 | \$ 638,005 | \$ 37,103 | 6.2% |

16 *Approximately \$6 million in additional operating expenses = 1 percent increase in revenue

| | FY 2019 | W&S Rev |
|----|---|---------|
| | Estimated** | Impact |
| 17 | Potential Offsets to Revenue Increase: | |
| 18 | \$50 million CIP Reduction = Debt Service Impact @ 5% Interest | -0.3% |
| 19 | \$100 million CIP Reduction = Debt Service Impact @ 5% Interest | -0.5% |
| 20 | \$125 million CIP Reduction = Debt Service Impact @ 5% Interest | -0.7% |

21 **Notable Assumptions:**

22 4.5% increase in Salaries & Wages FY 2019 through FY 2024

23 1.0% increase in All Other FY 2019; 2.0% remains for outer years

24 \$6 million included for Operational Improvements

25 92% completion factor for CIP; 100% for Information Only (Including Reconstruction)

26 **Debt service impact on new bond issuance assumes only one payment (or half year) in FY 2019. Outer year impact would
27 be double the amounts shown.

SUMMARY FINANCIAL FORECAST - WATER AND SEWER OPERATING FUNDS AT BASE CASE

| | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 |
|--|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| (In Thousands \$000s) | Approved | Estimated | Projected | Projected | Projected | Projected | Projected |
| 1 SUMMARY | | | | | | | |
| 2 New Water and Sewer Debt Issues | 522,825 | 546,879 | 536,394 | 519,803 | 423,105 | 366,167 | 325,611 |
| 3 Total Water and Sewer Debt Service | 257,071 | 281,174 | 319,840 | 352,501 | 375,919 | 396,713 | 416,814 |
| 4 Total Water and Sewer Expenditures | 725,348 | 770,711 | 831,668 | 884,647 | 927,102 | 966,412 | 1,004,795 |
| 5 Water and Sewer Combined Increase (Average) | 3.5% | 6.2% | 11.5% | 7.7% | 5.8% | 5.0% | 5.2% |
| 6 OPERATING REVENUES | | | | | | | |
| 7 Water Consumption Charges | 267,080 | 267,080 | 267,080 | 285,632 | 322,252 | 349,689 | 371,864 |
| 8 Sewer Use Charges | 333,822 | 333,822 | 333,822 | 352,374 | 388,994 | 416,431 | 438,606 |
| 9 Other Sources/Fees | 104,466 | 104,738 | 104,942 | 105,146 | 105,351 | 105,556 | 105,762 |
| 9 Operating Revenues | 705,368 | 705,640 | 742,947 | 816,393 | 871,471 | 916,027 | 956,739 |
| 10 OTHER CREDITS AND TRANSFERS | 19,980 | 27,968 | 15,480 | 13,381 | 11,280 | 9,879 | 3,882 |
| 11 Total Funds Available | 725,348 | 733,608 | 758,427 | 829,774 | 882,751 | 925,906 | 960,620 |
| 12 OPERATING EXPENSES | | | | | | | |
| 13 Maintenance and Operating | 384,467 | 398,962 | 410,310 | 422,034 | 434,146 | 446,663 | 459,598 |
| 14 Regional Sewage Disposal | 53,617 | 53,617 | 55,601 | 55,601 | 55,601 | 55,601 | 55,601 |
| 15 | 438,084 | 452,579 | 465,911 | 477,635 | 489,747 | 502,264 | 515,199 |
| 16 DEBT SERVICE | 257,071 | 281,174 | 319,840 | 352,501 | 375,919 | 396,713 | 416,814 |
| 17 Operating Expenses | 695,155 | 733,753 | 785,751 | 830,136 | 865,666 | 898,977 | 932,013 |
| 19 PAYGO (Contribution to bond fund) | 30,193 | 36,958 | 45,917 | 54,511 | 61,436 | 67,435 | 72,782 |
| 20 Total Expenditures | 725,348 | 770,711 | 831,668 | 884,647 | 927,102 | 966,412 | 1,004,795 |
| 21 Net Revenue (Loss) | 0 | (37,103) | (73,241) | (54,873) | (44,351) | (40,506) | (44,175) |
| 22 Notable Assumptions: | | | | | | | |
| 23 Water Production (MGD) | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 |
| 24 Debt Service as a Percentage of Total Expenditures (Below 40% is target) | 35.4% | 36.5% | 38.5% | 39.8% | 40.5% | 41.1% | 41.5% |
| 25 Estimated Impact of Rate Increase on Residential Monthly Bill: | | | | | | | |
| 26 At 160 GPD usage | n/a | \$3.55 | \$7.02 | \$5.26 | \$4.25 | \$3.88 | \$4.23 |
| 27 At 137 GPD usage | n/a | \$2.67 | \$5.27 | \$3.95 | \$3.19 | \$2.92 | \$3.18 |
| 28 At 100 GPD usage | n/a | \$1.95 | \$3.85 | \$2.88 | \$2.33 | \$2.13 | \$2.32 |

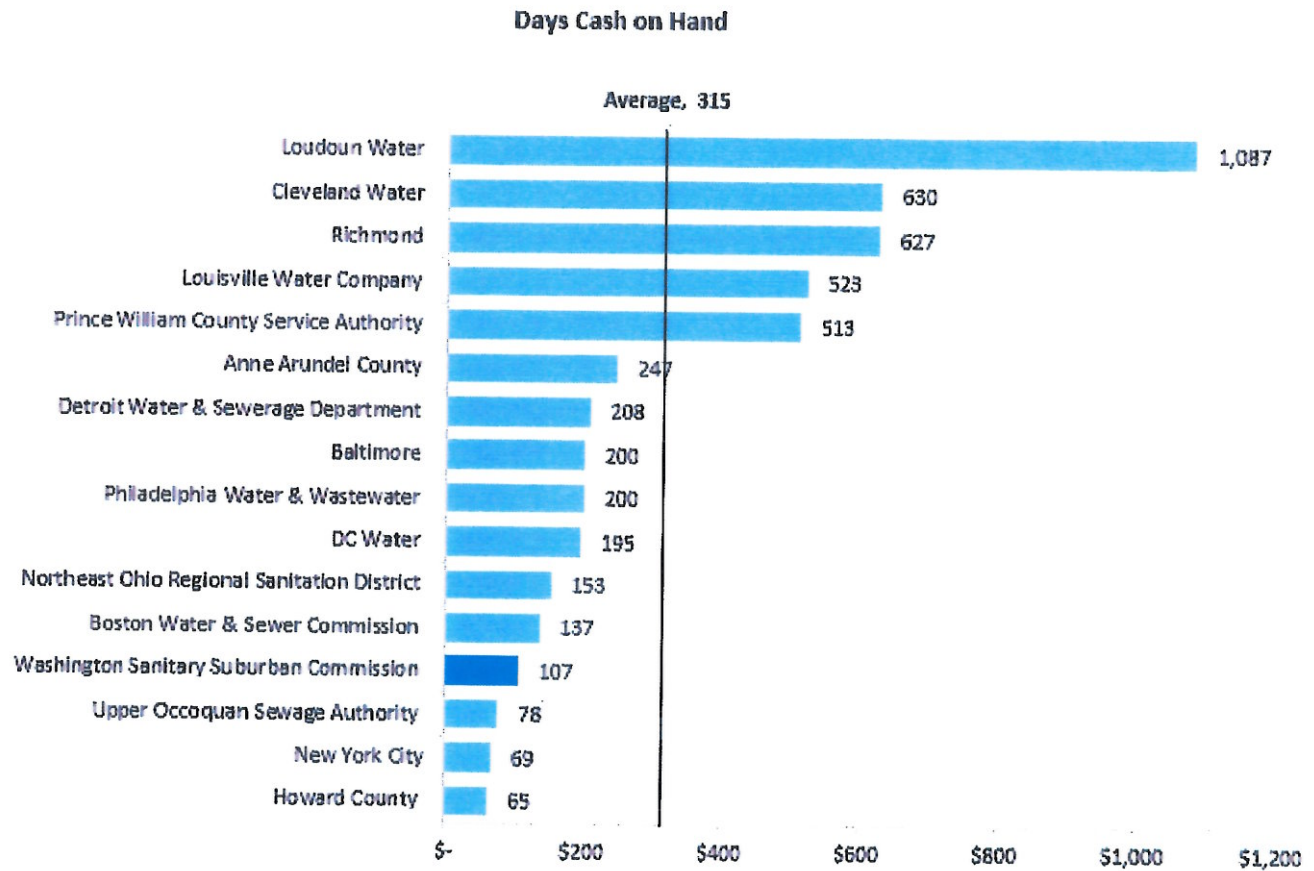
FINANCIAL FORECAST - WATER AND SEWER OPERATING FUNDS AT BASE CASE

| | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| (In Thousands \$000s) | Approved | Estimated | Projected | Projected | Projected | Projected | Projected |
| 1 SUMMARY | | | | | | | |
| 2 New Water and Sewer Debt Issues | 522,825 | 546,879 | 536,394 | 519,803 | 423,105 | 366,167 | 325,611 |
| 3 Total Water and Sewer Debt Service | 257,071 | 281,174 | 319,840 | 352,501 | 375,919 | 396,713 | 416,814 |
| 4 Total Water and Sewer Expenditures | 725,348 | 770,711 | 831,668 | 884,647 | 927,102 | 966,412 | 1,004,795 |
| 5 Water and Sewer Combined Increase (Average) | 3.5% | 6.2% | 11.5% | 7.7% | 5.8% | 5.0% | 5.2% |
| 6 OPERATING REVENUES | | | | | | | |
| 7 Water Consumption Charges | 267,080 | 267,080 | 285,632 | 322,252 | 349,689 | 371,864 | 392,118 |
| 8 Sewer Use Charges | 333,822 | 333,822 | 352,374 | 388,994 | 416,431 | 438,606 | 458,860 |
| Revenue/Unspecified Adjustments | 0 | 37,103 | 73,241 | 54,874 | 44,351 | 40,507 | 44,175 |
| 9 Other Sources/Fees | 104,466 | 104,738 | 104,942 | 105,146 | 105,351 | 105,556 | 105,762 |
| 15 Operating Revenues | 705,368 | 742,743 | 816,188 | 871,266 | 915,822 | 956,533 | 1,000,914 |
| 16 OTHER CREDITS AND TRANSFERS | | | | | | | |
| 17 Interest Income | 700 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 |
| 18 Fund Balance Contribution/Other | 11,580 | 11,580 | - | - | - | - | - |
| 19 SDC Debt Service Offset | - | 2,388 | 2,380 | 2,381 | 2,380 | 2,379 | 2,381 |
| 20 Reconstruction Debt Service Offset (REDO) | 7,700 | 12,500 | 11,600 | 9,500 | 7,400 | 6,000 | - |
| 21 Total Funds Available | 725,348 | 770,711 | 831,668 | 884,647 | 927,102 | 966,413 | 1,004,795 |
| 22 OPERATING EXPENSES | | | | | | | |
| 23 Salaries and Wages | 120,276 | 125,688 | 131,344 | 137,255 | 143,431 | 149,886 | 156,631 |
| 24 Heat, Light, and Power | 22,015 | 22,675 | 23,356 | 24,056 | 24,778 | 25,521 | 26,287 |
| 25 Regional Sewage Disposal | 53,617 | 53,617 | 55,601 | 55,601 | 55,601 | 55,601 | 55,601 |
| 26 All Other | 242,177 | 250,598 | 255,610 | 260,722 | 265,937 | 271,256 | 276,681 |
| 27 | 438,084 | 452,579 | 465,911 | 477,635 | 489,747 | 502,264 | 515,199 |
| 28 DEBT SERVICE | | | | | | | |
| 29 Bonds and Notes Principle and Interest | 257,071 | 281,174 | 319,840 | 352,501 | 375,919 | 396,713 | 416,814 |
| 30 | 257,071 | 281,174 | 319,840 | 352,501 | 375,919 | 396,713 | 416,814 |
| 31 Operating Expenses | 695,155 | 733,753 | 785,751 | 830,136 | 865,666 | 898,977 | 932,013 |
| 32 OTHER TRANSFERS | | | | | | | |
| 33 PAYGO (Contribution to bond fund) | 30,193 | 36,958 | 45,917 | 54,511 | 61,436 | 67,435 | 72,782 |
| 34 Total Expenditures | 725,348 | 770,711 | 831,668 | 884,647 | 927,102 | 966,412 | 1,004,795 |
| 35 Net Revenue (Loss) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 36 BEGINNING FUND BALANCE - JULY 1 | \$ 189,956 | \$ 178,376 | \$ 166,796 | \$ 166,796 | \$ 166,796 | \$ 166,796 | \$ 166,797 |
| 37 Net Increase (Decrease) in Fund Balance | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 38 Use of Fund Balance/Other Adjustments | (11,580) | (11,580) | - | - | - | - | - |
| 39 ENDING FUND BALANCE - JUNE 30 | \$ 178,376 | \$ 166,796 | \$ 166,796 | \$ 166,796 | \$ 166,796 | \$ 166,797 | \$ 166,797 |
| 40 Debt Service Coverage | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 |
| 41 Debt Service as a Percentage of Total Expenditures (Below 40% is target) | 35.4% | 36.5% | 38.5% | 39.8% | 40.5% | 41.1% | 41.5% |
| 42 Operating Reserve Required 10% Level (\$) | \$70,537 | \$74,274 | \$81,619 | \$87,127 | \$91,582 | \$95,653 | \$100,091 |
| 43 Days Cash-on-Hand Operating Reserve (60 to 90 DCOH Target) | 91.4 | 80.3 | 74.4 | 69.8 | 66.6 | 63.9 | 61.4 |
| 44 Ending Fund Balance as a Percentage of Operating Revenue (10% min) | 25.3% | 22.5% | 20.4% | 19.1% | 18.2% | 17.4% | 16.7% |
| 45 Total Workyears (All Funds) | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 |

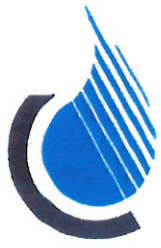
ASSUMPTIONS FOR FINANCIAL FORECAST

| | WORKLOAD DATA | | PROJECTED | | | | |
|---|---------------|------------|------------|------------|------------|------------|------------|
| | FY 2018A | FY 2019E | FY 2020 | FY 2021 | FY 2022 | FY 2023 | FY 2024 |
| 1 REVENUE | | | | | | | |
| 2 <u>Water Consumption and Sewer Treatment</u> | | | | | | | |
| 3 Water to be supplied (Average MGD) | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 |
| 4 Yearly Growth % | | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| 5 Sewage to be treated (Average MGD) | 207.2 | 211.4 | 215.6 | 219.9 | 224.3 | 228.8 | 228.8 |
| 6 Yearly Growth % | | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 0.0% |
| 7 <u>Credits and Transfers</u> | | | | | | | |
| 8 Use of Fund Balance | \$ 11,580 | \$ 11,580 | \$ - | \$ - | \$ - | \$ - | \$ - |
| 9 SDC Debt Service Offset | \$ - | \$ 2,388 | \$ 2,380 | \$ 2,381 | \$ 2,380 | \$ 2,379 | \$ 2,381 |
| 10 REDO Offset | \$ 7,700 | \$ 12,500 | \$ 11,600 | \$ 9,500 | \$ 7,400 | \$ 6,000 | \$ - |
| 11 <u>Other Assumption Drivers</u> | | | | | | | |
| 12 Population to be served (000s) | 1,792 | 1,801 | 1,810 | 1,821 | 1,832 | 1,843 | 1,843 |
| 13 Yearly Growth % | | 0.5% | 0.5% | 0.6% | 0.6% | 0.6% | 0.0% |
| 14 Customer Accounts (000s) | 456 | 458 | 460 | 462 | 464 | 466 | 466 |
| 15 Yearly Growth % | | 0.4% | 0.4% | 0.4% | 0.4% | 0.4% | 0.0% |
| 16 EXPENDITURE | | | | | | | |
| 17 <u>Operating</u> | | | | | | | |
| 18 CPI Baltimore-Washington | 2.0% | 2.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% |
| 19 Workyears | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 |
| 20 Salary and Wages Increase | 4.5% | 4.5% | 4.5% | 4.5% | 4.5% | 4.5% | 4.5% |
| 21 Heat, Light, and Power | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% |
| 22 Regional Sewage Disposal | \$ 53,617 | \$ 53,617 | \$ 55,601 | \$ 55,601 | \$ 55,601 | \$ 55,601 | \$ 55,601 |
| 23 All Other | 2.0% | 1.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| 24 Debt Service | \$ 257,071 | \$ 281,174 | \$ 319,840 | \$ 352,501 | \$ 375,919 | \$ 396,713 | \$ 416,814 |
| 25 Yearly Growth % | | 9.4% | 13.8% | 10.2% | 6.6% | 5.5% | 5.1% |
| 26 PAYGO | \$ 30,193 | \$ 36,958 | \$ 45,917 | \$ 54,511 | \$ 61,436 | \$ 67,435 | \$ 72,782 |
| 27 <u>Capital Expenditure Parameters</u> | | | | | | | |
| 28 Infrastructure Construction | 3.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| 29 Water and Sewer Completion Factor | 92.1% | 92.0% | 90.9% | 92.5% | 93.0% | 93.1% | 93.2% |
| 30 Information Only Completion Factor | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| 31 BOND ISSUANCE | | | | | | | |
| 32 Water and Sewer Issuance w Completion Factor | \$ 522,825 | \$ 546,879 | \$ 536,394 | \$ 519,803 | \$ 423,105 | \$ 366,167 | \$ 325,611 |
| 33 Interest Rate | 3.5% | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% | 5.0% |

PEER REVIEW OF DAYS-CASH-ON-HAND



Source: Wye River Independent Financial Advisors, March 2017



**WASHINGTON SUBURBAN SANITARY
COMMISSION**

**SPENDING AFFORDABILITY
FISCAL YEAR 2019**

SEPTEMBER 21, 2017

**FY'19 WSSC Multi-Year Financial Forecast
Summary**

| Forecast Scenario | PAYGO | Additional & Reinstated | Use of Fund Balance Climate Change | Use of Fund Balance Strategic Energy plan | Use of Fund Balance IT Strategic Plan | Total Use of Fund Balance | Debt Service Reductions | Unspecified Reductions | Rate |
|---|--------|-------------------------|------------------------------------|---|---------------------------------------|---------------------------|-------------------------|------------------------|------|
| Scenario 1 - Base Case - Status Quo -No Additional & Reinstated (A&R) | 36,958 | | 100 | 200 | 11,280 | 11,580 | | | 5.2% |
| Scenario 2 - Base Case - A&R Operational Improvements | 36,958 | 6,000 | 100 | 200 | 11,280 | 11,580 | | | 6.2% |
| Scenario 3 - No A&R, CIP Deferrals, Debt Service and Unspecified Reductions | 35,942 | | 100 | 200 | 11,280 | 11,580 | (4,066) | (5,918) | 3.5% |

Scenario 3 is not recommended by WSSC.

REVENUES AND EXPENDITURES - IMPACT ON ADOPTED CHARGES

WATER AND SEWER PROGRAM COMBINED OPERATING FUNDS

Scenario: No \$6m Ops Improvement, \$125m CIP Deferral, \$4.5m Discretionary Reduction

| | | FY 2018 | FY 2019 | Dollar | W&S Rev |
|----|---|-----------------------|------------|-----------|---------|
| | | Approved | Estimated | Change | Impact* |
| | | (In Thousands \$000s) | | | |
| 1 | OPERATING REVENUES | | | | |
| 2 | Adopted Water and Sewer Charges | \$ 600,902 | \$ 600,902 | \$ - | 0.0% |
| 3 | OPERATING EXPENSES | | | | |
| 4 | Salaries and Wages | \$ 120,276 | \$ 125,688 | \$ 5,412 | 0.9% |
| 5 | Heat, Light, and Power | 22,015 | 22,675 | 660 | 0.1% |
| 6 | Regional Sewage Disposal | 53,617 | 53,617 | - | 0.0% |
| 7 | All Other | 242,177 | 238,680 | (3,496) | -0.6% |
| 8 | Operational Improvements | - | - | - | 0.0% |
| 9 | DEBT SERVICE | 257,071 | 277,108 | 20,037 | 3.3% |
| 10 | PAYGO (Contribution to bond fund) | 30,193 | 35,942 | 5,749 | 1.0% |
| 11 | | \$ 725,348 | \$ 753,711 | \$ 28,363 | 4.8% |
| 12 | REVENUES | | | | |
| 13 | Other Sources and Fees | (104,466) | (104,738) | (272) | 0.0% |
| 14 | OTHER TRANSFERS AND CREDITS | (19,980) | (27,968) | (7,988) | -1.3% |
| 15 | Total - Water & Sewer Revenue Need | \$ 600,902 | \$ 621,005 | \$ 20,103 | 3.5% |

16 *Approximately \$6 million in additional operating expenses = 1 percent increase in revenue

| | | FY 2019 | W&S Rev |
|----|---|-------------|---------|
| | | Estimated** | Impact |
| 17 | Potential Offsets to Revenue Increase: | | |
| 18 | \$50 million CIP Reduction = Debt Service Impact @ 5% Interest | \$ (1,626) | -0.3% |
| 19 | \$100 million CIP Reduction = Debt Service Impact @ 5% Interest | \$ (3,253) | -0.5% |
| 20 | \$125 million CIP Reduction = Debt Service Impact @ 5% Interest | \$ (4,066) | -0.7% |

21 Notable Assumptions:

22 4.5% increase in Salaries & Wages FY 2019 through FY 2024

23 1.0% increase in All Other FY 2019; 2.0% remains for outer years

24 \$6 million A&R for Operational Improvements has been removed.

25 92% completion factor for CIP; 100% for Information Only (including Reconstruction)

26 **Debt service impact on new bond issuance assumes only one payment (or half year) in FY 2019. Outer year impact would
27 be double the amounts shown.

FINANCIAL FORECAST FOR WATER AND SEWER OPERATING FUNDS

Scenario (Revenue Increase: Water and Sewer +3.5%; Expense Growth: 3.9%; Debt Service Expense: \$277m/\$421m New Bond Issue)

| | FY2018 | FY2019 | FY2020** | FY2021 | FY2022 | FY2023 | FY2024 |
|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| (In Thousands \$000s) | Approved | Estimated | Projected | Projected | Projected | Projected | Projected |
| 1 SUMMARY | | | | | | | |
| 2 New Water and Sewer Debt Issues | \$ 522,825 | 421,879 | 536,394 | 519,803 | 423,105 | 366,167 | 325,611 |
| 3 Total Water and Sewer Debt Service | 257,071 | 277,108 | 311,708 | 344,370 | 367,787 | 388,582 | 408,683 |
| 4 Total Water and Sewer Expenditures | 725,348 | 753,711 | 821,504 | 874,483 | 916,937 | 956,248 | 994,631 |
| 5 Water and Sewer Combined Increase (Average) | 3.5% | 3.5% | 10.1% | 6.4% | 4.5% | 3.8% | 4.1% |
| 6 REVENUE | | | | | | | |
| 7 OPERATING REVENUE - Base Case Level | \$ 705,368 | \$ 742,743 | \$ 816,188 | \$ 871,266 | \$ 915,821 | \$ 956,533 | \$ 1,000,914 |
| 8 Water and Sewer Revenue Change From Base Case | | (17,000) | (10,164) | (10,165) | (10,164) | (10,165) | (10,165) |
| 9 Other Revenue Adjustments | | | | | | | |
| 10 Subtotal with Adjustments | 705,368 | 725,743 | 806,023 | 861,101 | 905,657 | 946,368 | 990,749 |
| 11 OTHER CREDITS AND TRANSFERS - Base Case Level | 8,400 | 16,388 | 15,480 | 13,381 | 11,280 | 9,879 | 3,882 |
| 12 Fund Balance Contribution/Other | 11,580 | 11,580 | - | - | - | - | - |
| 13 Adjustment #1 | - | - | - | - | - | - | - |
| 14 Subtotal with Adjustments | 11,580 | 11,580 | - | - | - | - | - |
| 15 Total Funds Available | 725,348 | 753,711 | 821,503 | 874,482 | 916,937 | 956,247 | 994,631 |
| 16 <i>Yearly Growth</i> | <i>n/a</i> | <i>3.9%</i> | <i>9.0%</i> | <i>6.4%</i> | <i>4.9%</i> | <i>4.3%</i> | <i>4.0%</i> |
| 17 OPERATING | | | | | | | |
| 18 OPERATING EXPENSES - Base Case Level | \$ 438,084 | \$ 452,579 | \$ 465,911 | \$ 477,635 | \$ 489,747 | \$ 502,264 | \$ 515,199 |
| 19 Eliminate Operational Improvem'ts (A&R) | - | (6,000) | - | - | - | - | - |
| 20 Unspecified Adjustments | - | (5,918) | - | - | - | - | - |
| 21 Adjustment #3 | - | - | - | - | - | - | - |
| 22 Adjustment #4 | - | - | - | - | - | - | - |
| 23 Unspecified Adjustments | - | - | - | - | - | - | - |
| 24 Subtotal with Adjustments | 438,084 | 440,661 | 465,911 | 477,635 | 489,747 | 502,264 | 515,199 |
| 25 DEBT SERVICE - Base Case Level | 257,071 | 281,174 | 319,840 | 352,501 | 375,919 | 396,713 | 416,814 |
| 26 \$125 million CIP Deferral | - | (\$4,066) | (8,131) | (8,131) | (8,131) | (8,131) | (8,131) |
| 27 Adjustment #2 | - | - | - | - | - | - | - |
| 28 Adjustment #3 | - | - | - | - | - | - | - |
| 29 Subtotal with Adjustments | 257,071 | 277,108 | 311,708 | 344,370 | 367,787 | 388,582 | 408,683 |
| 30 PAYGO (Contribution to bond fund) - Base Case Level | 30,193 | 36,958 | 45,917 | 54,511 | 61,436 | 67,435 | 72,782 |
| 31 \$125 million CIP Deferral (25% PAYGO) | - | (1,016) | (2,033) | (2,033) | (2,033) | (2,033) | (2,033) |
| 32 Subtotal with Adjustments | 30,193 | 35,942 | 43,884 | 52,478 | 59,403 | 65,402 | 70,749 |
| 33 Total Expenditures | 725,348 | 753,711 | 821,504 | 874,483 | 916,937 | 956,248 | 994,631 |
| 34 <i>Yearly Growth</i> | <i>n/a</i> | <i>3.9%</i> | <i>9.0%</i> | <i>6.4%</i> | <i>4.9%</i> | <i>4.3%</i> | <i>4.0%</i> |
| 35 | | | | | | | |
| 36 Net Revenue (Loss) | 0 | (0) | (0) | (0) | (0) | (0) | (0) |
| 37 | | | | | | | |
| 38 BEGINNING FUND BALANCE - JULY 1 | \$ 189,956 | \$ 178,376 | \$ 166,796 | \$ 166,795 | \$ 166,795 | \$ 166,794 | \$ 166,794 |
| 39 Net Increase (Decrease) in Fund Balance | 0 | (0) | (0) | (0) | (0) | (0) | (0) |
| 40 Use of Fund Balance/Other Adjustments | (11,580) | (11,580) | - | - | - | - | - |
| 41 ENDING FUND BALANCE - JUNE 30 | \$ 178,376 | \$ 166,796 | \$ 166,795 | \$ 166,795 | \$ 166,794 | \$ 166,794 | \$ 166,793 |
| 42 Debt Service Coverage | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 |
| 43 Debt Service as a Percentage of Total Expenditures (Below 40% is target) | 35.4% | 36.8% | 37.9% | 39.4% | 40.1% | 40.6% | 41.1% |
| 44 Operating Reserve Required 10% Level (\$) | \$70,537 | \$72,574 | \$80,602 | \$86,110 | \$90,566 | \$94,637 | \$99,075 |
| 45 Days Cash-on-Hand Operating Reserve (60 to 90 DCOH target) | 91.4 | 82.2 | 75.3 | 70.7 | 67.3 | 64.5 | 62.0 |
| 46 Total Workyears (All Funds) | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 |

**FY2020 is the planned implementation of new rate structure.

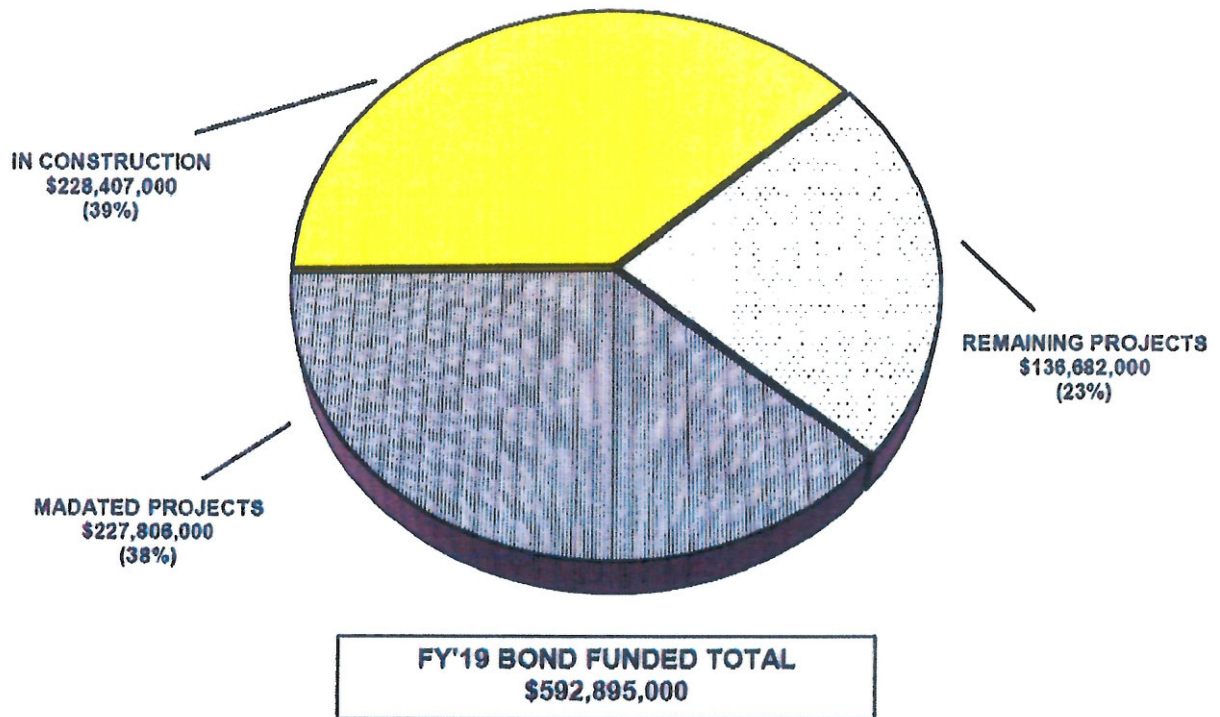
| 1 BILLING FACTOR | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2 Calculated (w impact of revenue adjustments): | Approved | Estimated | Projected | Projected | Projected | Projected | Projected |
| 3 Water and Sewer Combined: | | | | | | | |
| 4 Billing Factor - at 1 MGD (In 000s) | 10.03846 | 10.37429 | 11.71202 | 12.62872 | 13.36962 | 14.04630 | 14.78428 |
| 5 Total Charges: | \$600,902 | \$621,005 | \$701,082 | \$755,955 | \$800,306 | \$840,812 | \$884,987 |
| 6 Water: | | | | | | | |
| 7 Water to be supplied (Average MGD) | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 |
| 8 <i>Yearly Growth %</i> | n/a | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| 9 Billing Factor - Water at 1 MGD (In 000s) | 4.46175 | 4.62966 | 5.29853 | 5.75688 | 6.12733 | 6.46567 | 6.83465 |
| 10 Total Water Consumption Charges: | \$267,080 | \$277,132 | \$317,170 | \$344,607 | \$366,782 | \$387,035 | \$409,122 |
| 11 Sewer: | | | | | | | |
| 12 Sewer to be treated (Average MGD) | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 |
| 13 <i>Yearly Growth %</i> | n/a | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| 14 Billing Factor - Sewer at 1 MGD (In 000s) | 5.57672 | 5.74463 | 6.41350 | 6.87184 | 7.24230 | 7.58064 | 7.94962 |
| 15 Total Sewer Use Charges: | \$333,822 | \$343,874 | \$383,912 | \$411,349 | \$433,524 | \$453,777 | \$475,864 |

FINANCIAL FORECAST - WATER AND SEWER OPERATING FUNDS AT BASE CASE

| | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | FY 2024 |
|---|------------|------------|------------|------------|------------|------------|------------|
| (In Thousands \$000s) | Approved | Estimated | Projected | Projected | Projected | Projected | Projected |
| 1 SUMMARY | | | | | | | |
| 2 New Water and Sewer Debt Issues | \$ 522,825 | \$ 546,879 | \$ 536,394 | \$ 519,803 | \$ 423,105 | \$ 366,167 | \$ 325,611 |
| 3 Total Water and Sewer Debt Service | 257,071 | 281,174 | 319,840 | 352,501 | 375,919 | 396,713 | 416,814 |
| 4 Total Water and Sewer Expenditures | 725,348 | 770,711 | 831,668 | 884,647 | 927,102 | 966,412 | 1,004,795 |
| 5 Water and Sewer Combined Increase (Average) | 3.5% | 6.2% | 11.5% | 7.7% | 5.8% | 5.0% | 5.2% |
| 6 OPERATING REVENUES | | | | | | | |
| 7 Water Consumption Charges | \$ 267,080 | \$ 267,080 | \$ 285,632 | \$ 322,252 | \$ 349,689 | \$ 371,864 | \$ 392,118 |
| 8 Sewer Use Charges | 333,822 | 333,822 | 352,374 | 388,994 | 416,431 | 438,606 | 458,860 |
| Revenue/Unspecified Adjustments | 0 | 37,103 | 73,241 | 54,874 | 44,350 | 40,507 | 44,175 |
| 9 Other Sources/Fees | 104,466 | 104,738 | 104,942 | 105,146 | 105,351 | 105,556 | 105,762 |
| 10 Account Maintenance Fees | 32,118 | 32,182 | 32,247 | 32,311 | 32,376 | 32,440 | 32,505 |
| 11 Rockville Sewer Use | 2,632 | 2,700 | 2,700 | 2,700 | 2,700 | 2,700 | 2,700 |
| 12 Plumbing and Inspection Fees | 11,300 | 11,323 | 11,345 | 11,368 | 11,391 | 11,413 | 11,436 |
| 13 Infrastructure Investment Fee | 38,816 | 38,894 | 38,971 | 39,049 | 39,127 | 39,206 | 39,284 |
| 14 Miscellaneous | 19,600 | 19,639 | 19,678 | 19,718 | 19,757 | 19,797 | 19,836 |
| 15 Operating Revenues | 705,368 | 742,743 | 816,188 | 871,266 | 915,821 | 956,533 | 1,000,914 |
| 16 OTHER CREDITS AND TRANSFERS | | | | | | | |
| 17 Interest Income | 700 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 |
| 18 Fund Balance Contribution/Other | 11,580 | 11,580 | - | - | - | - | - |
| 19 SDC Debt Service Offset | - | 2,388 | 2,380 | 2,381 | 2,380 | 2,379 | 2,381 |
| 20 Reconstruction Debt Service Offset (REDO) | 7,700 | 12,500 | 11,600 | 9,500 | 7,400 | 6,000 | - |
| 21 Total Funds Available | 725,348 | 770,711 | 831,668 | 884,647 | 927,101 | 966,413 | 1,004,796 |
| 22 OPERATING EXPENSES | | | | | | | |
| 23 Salaries and Wages | \$ 120,276 | \$ 125,688 | \$ 131,344 | \$ 137,255 | \$ 143,431 | \$ 149,886 | \$ 156,631 |
| 24 Heat, Light, and Power | 22,015 | 22,675 | 23,356 | 24,056 | 24,778 | 25,521 | 26,287 |
| 25 Regional Sewage Disposal | 53,617 | 53,617 | 55,601 | 55,601 | 55,601 | 55,601 | 55,601 |
| 26 All Other | 242,177 | 250,598 | 255,610 | 260,722 | 265,937 | 271,256 | 276,681 |
| 27 | 438,084 | 452,579 | 465,911 | 477,635 | 489,747 | 502,264 | 515,199 |
| 28 DEBT SERVICE | | | | | | | |
| 29 Bonds and Notes Principle and Interest | 257,071 | 281,174 | 319,840 | 352,501 | 375,919 | 396,713 | 416,814 |
| 30 | 257,071 | 281,174 | 319,840 | 352,501 | 375,919 | 396,713 | 416,814 |
| 31 Operating Expenses | 695,155 | 733,753 | 785,751 | 830,136 | 865,666 | 898,977 | 932,013 |
| 32 OTHER TRANSFERS | | | | | | | |
| Working Capital Reserve Transfer | - | - | - | - | - | - | - |
| 33 PAYGO (Contribution to bond fund) | 30,193 | 36,958 | 45,917 | 54,511 | 61,436 | 67,435 | 72,782 |
| 34 Total Expenditures | 725,348 | 770,711 | 831,668 | 884,647 | 927,102 | 966,412 | 1,004,795 |
| 35 Net Revenue (Loss) | 0 | (0) | (0) | 0 | (0) | 0 | 0 |
| 36 BEGINNING FUND BALANCE - JULY 1 | \$ 189,956 | \$ 178,376 | \$ 166,796 | \$ 166,795 | \$ 166,795 | \$ 166,795 | \$ 166,795 |
| 37 Net Increase (Decrease) in Fund Balance | 0 | (0) | (0) | 0 | (0) | 0 | 0 |
| 38 Use of Fund Balance/Other Adjustments | (11,580) | (11,580) | - | - | - | - | - |
| 39 ENDING FUND BALANCE - JUNE 30 | \$ 178,376 | \$ 166,796 | \$ 166,795 | \$ 166,795 | \$ 166,795 | \$ 166,795 | \$ 166,796 |
| 40 Debt Service Coverage | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 |
| 41 Debt Service as a Percentage of Total Expenditures (Below 40% is target) | 35.4% | 36.5% | 38.5% | 39.8% | 40.5% | 41.1% | 41.5% |
| 42 Operating Reserve Required 10% Level (\$) | \$70,537 | \$74,274 | \$81,619 | \$87,127 | \$91,582 | \$95,653 | \$100,091 |
| 43 Days Cash-on-Hand Operating Reserve (60 to 90 DCOH Target) | 91.4 | 80.3 | 74.4 | 69.8 | 66.6 | 63.9 | 61.4 |
| 44 Total Workyears (All Funds) | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 |

FY 2019 BOND FUNDED PROJECTS

COMBINED CIP & INFORMATION ONLY



Bond Funded Projects

Bond Funding Amounts

| Project | Project Name | Status | Priority | Estimated | | | | Total 6 Years | Beyond | | | | |
|---------------------------|---|---------|----------|-----------|--|--|--|--|--|--|---|---|---|
| | | | | EC18 | EC19 | EC20 | EC21 | | | | | | |
| Possible Deferrals | | | | | | | | | | | | | |
| Sum of Deferrals below | | | | (125,303) | (34,861) | (26,912) | (1,027) | (14,455) | (20,554) | (205,299) | | | |
| W-1100 | Water Reconstruction Program per mile from \$1,600 back to \$949 net Emerg Contr for deposits \$1M to \$500k each net cut contract miles 43 to 33 net | Ongoing | 8 | 121,472 | 118,722 (21,991) 96,721 (3,351) 62,380 (13,829) 79,551 | 121,231 (22,483) 98,748 (3,351) 98,748 (13,829) 79,551 | 123,860 (22,912) 100,948 (3,351) 100,948 (13,829) 79,551 | 126,646 (23,405) 103,241 (3,351) 103,241 (13,829) 79,551 | 129,222 (24,328) 105,899 (3,351) 105,389 (13,829) 79,551 | 131,894 (24,328) 107,538 (3,351) 107,538 (13,829) 79,551 | 751,545 (138,891) 612,594 (3,351) 609,248 (13,829) 79,551 | 0 | Assumes Counties agree that pipe can be abandoned in place Could delay response time for emergency water main breaks Could increase frequency of breaks and leaks |
| total reductions | | | | | (39,171) | (22,483) | (22,912) | (23,405) | (24,328) | (156,131) | | | |
| W-161.01 | Large Diameter Water Pipe Rehabilitation Program Ferrous miles from 6 back to 4 Reduce PCCP repairs 25% | Ongoing | 9 | 53,208 | 53,622 (7,711) (5,000) | 57,862 (2,000) | 62,865 (2,000) | 72,021 (2,000) | 73,751 (2,000) | 75,226 (2,000) | 395,347 (7,711) (5,000) | 0 | Could increase frequency of breaks and leaks Could increase frequency of breaks and leaks |
| A-105.00 | Water Storage Facility Rehabilitation Program delay/defer rate of rehab | Ongoing | 23 | 8,000 | 8,000 (2,000) | 8,000 (2,000) | 8,000 (2,000) | 8,000 (2,000) | 8,000 (2,000) | 48,000 (12,000) | 0 | Would increase backlog of tanks needing rehab | |
| A-102.00 | Engineering Support Program No increase - delay/defer rate of rehab | Ongoing | 38 | 14,000 | 16,000 (2,000) | 18,000 (2,000) | 18,000 (2,000) | 18,000 (2,000) | 20,000 (2,000) | 20,000 (2,000) | 110,000 (12,000) | 0 | Would delay needed rehab of facilities |
| A-109.00 | Advanced Metering Infrastructure defer/lag schedule | P-15 | 47 | 7,089 | 27,694 (14,000) | 27,694 | 27,694 | 2,884 14,000 | 0 | 85,866 0 | 0 | Delays all benefits of AMI - monthly billing | |
| S-96.14 | Piscataway WWTP Facility Upgrades defer/lag schedule | D-70 | 15 | 4,290 | 31,115 (5,000) | 39,591 | 24,810 | 24,278 | 10,969 5,000 | 0 | 130,763 0 | 0 | Would delay Raw WWS upgrade |
| W-172.07 | Paluxy Raw Water Pipeline defer new supply pipeline | D-90 | 18 | 4,202 | 8,278 (8,378) | 8,278 (8,378) | 0 | 0 | 0 | 0 | 16,756 0 | 0 | Delays emergency production capacity Risk reduction delayed |
| W-73.30 | Potomac WFP Submerged Channel Intake no movement | P-95 | 19 | 525 | 1,470 (1,400) | 3,917 | 24,255 | 24,150 | 19,425 | 5,040 1,400 | 78,257 0 | 0 | Delays benefits of project |
| | Blue Plains Projects assume 80% completion rate | | | 59,315 | 53,102 (6,372) | 63,994 | 60,116 | 46,664 | 48,330 | 40,597 6,372 | 312,803 0 | 87,311 | Assumes historic completion rate |
| S-170.09 | Trunk Sewer Reconstruction Program drop 2 more miles, from 15 to 13 miles drop 3 more miles, from 13 to 10 miles | Ongoing | 3 | 141,557 | 84,457 (8,714) (13,071) | 65,376 | 58,500 | 30,397 | 31,004 | 31,624 | 301,358 (8,714) | 0 | Could increase frequency of SSOs Delays CD P2 & P3 work |

Bond Funded Projects

Bond Funding Amounts

| Project | Project Name | Status | Priority | Estimated | | Proposed | | | | | | Total 6 Years | Beyond | |
|----------|---|---------|----------|-----------|------------------------------|----------|--------|-----------------|--------|--------|--------------------|------------------|---|--|
| | | | | ET18 | ET19 | ET20 | ET21 | ET22 | ET23 | ET24 | | | | |
| S-1.01 | Sewer Reconstruction Program Miles from 18 back to 15 Miles from 15 to 12 | Ongoing | 1 | 63,029 | 64,694 (4,243) (4,243) | 68,863 | 70,241 | 71,646 | 73,078 | 74,540 | 423,052 (4,243) | 0 | Could increase frequency of SSOs Defer CD P2 & P3 work | |
| S-103.02 | Pescadero WWTP Bio-Energy Project delay ~2 months | D-10 | 21 | 8,873 | 42,310 (4,000) | 74,751 | 73,553 | 34,566 4,000 | 4,253 | 0 | 229,433 0 | 0 | Schedule delay/lag Delays benefits of project Annual cost savings \$3.5M/year | |

Bond Funded Projects

Bond Funding Amounts

| Project | Project Name | Status | Priority | Estimated FY18 | Proposed FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | Total 6 Years | Beyond |
|--|--|---------|----------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|----------------|----------------|
| Under Agreement/Mandated | | | | | | | | | | | | |
| S-22.06 | Blue Plains WWTP: Liquid Train Projects, Part 2 | Ongoing | 26 | \$ 10,656 | \$ 17,786 | \$ 25,802 | \$ 22,598 | \$ 20,964 | \$ 24,015 | \$ 20,260 | \$ 131,425 | \$ 38,495 |
| S-22.07 | Blue Plains WWTP: Biosolids Management, Part | Ongoing | 26 | 2,970 | 10,132 | 10,865 | 6,609 | 3,083 | 970 | 628 | 32,287 | 615 |
| S-22.09 | Blue Plains WWTP: Plant-wide Projects | Ongoing | 26 | 7,084 | 6,654 | 13,175 | 15,041 | 14,005 | 13,822 | 7,324 | 70,021 | 16,020 |
| S-22.10 | Blue Plains WWTP: ENR | C-86% | 6 | 20,513 | 2,504 | 866 | 730 | 444 | 665 | 467 | 5,676 | 17,198 |
| S-22.11 | Blue Plains WWTP: Pipelines & Appurtenances | Ongoing | 26 | 18,092 | 16,026 | 13,286 | 15,138 | 8,168 | 8,858 | 11,918 | 73,394 | 14,983 |
| S-170.09 | Trunk Sewer Reconstruction Program | Ongoing | 3 | 141,557 | 84,457 | 65,376 | 58,500 | 30,397 | 31,004 | 31,624 | 301,358 | - |
| W-73.33 | Potomac WFP CD Program | P-95 | 5 | 5,430 | 9,850 | 10,500 | 19,950 | 27,300 | 28,350 | 25,200 | 121,150 | - |
| W-139.02 | Duckett & Brighton Dam Upgrades | C-35 | 7 | 8,142 | 7,801 | 745 | - | - | - | - | 8,546 | - |
| S-43.02 | Broad Creek WWPS Augmentation | C-70 | 2 | 2,945 | 2,588 | 1,151 | - | - | - | - | 3,739 | - |
| S-131.10 | Fort Washington Forest No. 1 WWPS Augmenta | D-70 | 4 | 342 | 1,275 | 600 | - | - | - | - | 1,875 | - |
| S-57.94 | Western Branch WWTP Incinerator Emissions C | Close | n/a | - | - | - | - | - | - | - | - | - |
| S-75.21 | Mattawoman WWTP Upgrades | Ongoing | 32 | 5,911 | 4,049 | 2,783 | 1,928 | 1,897 | 1,897 | 404 | 12,958 | 580 |
| Subtotal - Projects Under Agreement | | | | 223,642 | 163,122 | 145,149 | 140,494 | 106,258 | 109,581 | 97,825 | 762,429 | 117,291 |
| In Construction | | | | | | | | | | | | |
| W-3.02 | Oney Standpipe Replacement | C-23 | 14 | 4,322 | 918 | 152 | - | - | - | - | 1,070 | - |
| W-138.02 | Shady Grove Standpipe Replacement | C-5 | 36 | 6,398 | 3,857 | - | - | - | - | - | 3,857 | - |
| W-73.19 | Potomac WFP Outdoor Substation No. 2 Replacement | C-99 | 35 | 580 | 22 | - | - | - | - | - | 22 | - |
| W-73.22 | Potomac WFP Pre-Filter Chlorination and Air Sec | C-30 | 13 | 4,786 | 7,883 | 4,518 | 23 | - | - | - | 12,424 | - |
| W-73.21 | Potomac WFP Corrosion Mitigation | C-90 | 25 | 1,615 | 65 | - | - | - | - | - | 65 | - |
| W-127.01 | Bt-County Water Tunnel | Close | n/a | - | - | - | - | - | - | - | - | - |
| W-161.01 | Large Diameter Water Pipe Rehabilitation Program | Ongoing | 9 | 53,208 | 53,622 | 57,862 | 62,865 | 72,021 | 73,751 | 75,226 | 395,347 | - |
| W-172.05 | Patuxent WFP Phase II Expansion | C-80 | 12 | 6,229 | 1,076 | - | - | - | - | - | 1,076 | - |
| W-137.02 | Rocky Gorge Pump Station Upgrade | C-30 | 33 | 10,974 | 2,484 | 2,069 | - | - | - | - | 4,553 | - |
| W-65.10 | South Potomac Supply Improvement, Ph 1 | Close | 20 | 300 | - | - | - | - | - | - | - | - |
| W-123.20 | St. Barnabas Elevated Tank Replacement | C-36 | 39 | 3,008 | 211 | - | - | - | - | - | 211 | - |
| W-147.00 | Oak Grove/Leeland Roads Water Main, Part 2 | C-90 | 42 | 2,398 | 115 | - | - | - | - | - | 115 | - |
| S-57.92 | Collington Elevated Water Storage Facility | C-95 | 42 | 137 | 67 | - | - | - | - | - | 67 | - |
| W-202.00 | Western Branch Facility Upgrade | C-98 | 10 | 2,126 | 3,150 | 236 | 18 | 10 | 10 | 10 | 3,386 | - |
| S-203.00 | Land & Rights-of-Way Acquisition - Bt-County | N/A | 53 | 372 | 1,091 | 1,570 | 15 | 15 | 15 | 15 | 2,709 | - |
| | Land & Rights-of-Way Acquisition - Bt County | N/A | 53 | 95 | 80 | 15 | 15 | 15 | 15 | 15 | 155 | - |
| Subtotal - Projects in Construction | | | | 96,550 | 74,641 | 66,422 | 62,921 | 72,046 | 73,776 | 75,251 | 425,057 | 0 |

Bond Funded Projects

Bond Funding Amounts

| Project | In Design | Project Name | Status | Priority | Estimated FY18 | Proposed FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | Total 6 Years | Beyond |
|---|--|--------------|--------|----------|----------------|---------------|------------|------------|------------|------------|------------|---------------|------------|
| W-90.04 | Brnk Zone Reliability Improvements | D-90 | 17 | 4,290 | 6,490 | 968 | 242 | - | - | - | - | 7,700 | - |
| W-73.30 | Potomac WRP Main Zone Pipeline | D-10 | 11 | 550 | 1,100 | 660 | 19,030 | 15,180 | - | - | - | 35,970 | - |
| W-172.07 | Potomac Raw Water Pipeline | D-90 | 18 | 4,202 | 8,378 | 9,378 | - | - | - | - | - | 16,756 | - |
| S-103.02 | Piscataway WWTP Bio-Energy Project | D-10 | 21 | 8,873 | 42,310 | 74,751 | 73,553 | 34,566 | 4,253 | - | - | 229,433 | - |
| S-170.08 | Septage Discharge Facility Plan & Implementation | D-100 | 44 | 382 | 5,229 | 15,136 | 5,255 | - | - | - | - | 25,620 | - |
| W-12.02 | Prince George's County HC415 Zone Water Main | D-90 | 49 | 965 | 2,077 | 194 | - | - | - | - | - | 2,261 | - |
| W-34.02 | Old Branch Avenue Water Main | D-100 | 45 | 99 | 3,036 | 4,345 | 2,860 | - | - | - | - | 10,615 | - |
| W-34.05 | Marlboro Zone Reinforcement Main | D-90 | 31 | 810 | 3,036 | - | - | - | - | - | - | 3,036 | - |
| W-94.05 | Prince George's County 450A Zone Water Main | D-30 | 30 | 821 | 694 | 9,149 | 13,622 | 13,622 | 13,622 | 13,622 | 13,622 | 64,321 | 17,899 |
| W-137.03 | South Potomac Supply Improvement, Ph 2 | D-30 | 20 | 866 | 1,039 | 2,295 | 8,489 | 8,489 | 8,489 | 8,489 | 6,367 | 35,168 | - |
| S-96.14 | Piscataway WWTP Facility Upgrades | D-70 | 15 | 4,290 | 31,115 | 39,591 | 24,810 | 24,278 | 10,969 | - | - | 130,763 | 0 |
| Subtotal - Projects in Design | | | | | 26,148 | 104,868 | 155,457 | 147,861 | 96,135 | 37,333 | 19,989 | 561,643 | 17,899 |
| In Planning | | | | | | | | | | | | | |
| W-73.30 | Potomac WRP Submerged Channel Intake | P-95 | 19 | 525 | 1,470 | 3,917 | 24,255 | 24,150 | 19,425 | 5,040 | - | 78,257 | - |
| S-77.20 | Parkway North Substation Replacement | P-10 | 22 | 1,175 | 2,650 | 1,163 | - | - | - | - | - | 3,813 | - |
| Subtotal - Projects in Planning | | | | | 1,700 | 4,120 | 5,080 | 24,255 | 24,150 | 19,425 | 5,040 | 82,070 | 0 |
| Information Only Projects | | | | | | | | | | | | | |
| W-1.00 | Water Reconstruction Program | Ongoing | 8 | 121,472 | 118,722 | 121,231 | 123,860 | 126,646 | 129,222 | 131,864 | 751,545 | - | |
| S-1.01 | Sewer Reconstruction Program | Ongoing | 1 | 63,029 | 64,684 | 68,863 | 70,241 | 71,646 | 73,078 | 74,540 | 423,052 | - | |
| A-102.00 | Engineering Support Program | Ongoing | 38 | 14,000 | 16,000 | 18,000 | 18,000 | 18,000 | 20,000 | 20,000 | 110,000 | - | |
| A-103.00 | Energy Performance Program | Ongoing | 16 | 17,674 | 8,619 | 5,905 | - | - | - | - | 14,524 | - | |
| A-105.00 | Water Storage Facility Rehabilitation Program | Ongoing | 23 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | 8,000 | 48,000 | - | |
| A-107.00 | Specialty Valve Vault Rehabilitation Program | Ongoing | 24 | 4,879 | 1,442 | 1,124 | 928 | 910 | 892 | 527 | 5,823 | - | |
| A-109.00 | Advanced Metering Infrastructure | P-15 | 47 | 7,089 | 27,694 | 27,694 | 27,694 | 2,884 | - | - | 85,966 | 1,363 | |
| A-145.01 | Brighton Dam Operators & Maintenance Facility | C-0 | 48 | 5,003 | 983 | 22 | - | - | - | - | - | 1,005 | - |
| Subtotal - Information Only Projects | | | | | 241,146 | 246,144 | 250,839 | 248,723 | 228,086 | 231,192 | 234,931 | 1,439,915 | 1,363 |
| Total CIP Projects | | | | | \$ 348,040 | \$ 346,751 | \$ 372,108 | \$ 375,531 | \$ 298,589 | \$ 240,115 | \$ 198,105 | \$ 1,831,199 | \$ 135,180 |
| Information Only | | | | | \$ 241,146 | \$ 246,144 | \$ 250,839 | \$ 248,723 | \$ 228,086 | \$ 231,192 | \$ 234,931 | \$ 1,439,915 | \$ 1,363 |
| Combined Program Total | | | | | \$ 589,186 | \$ 592,895 | \$ 622,947 | \$ 624,254 | \$ 526,675 | \$ 471,307 | \$ 433,036 | \$ 3,271,114 | \$ 136,543 |
| Less PAYGO | | | | | \$ 29,294 | \$ 36,752 | \$ 43,473 | \$ 49,220 | \$ 54,005 | \$ 59,927 | \$ 65,000 | \$ 308,377 | |
| Net Bond | | | | | \$ 559,892 | \$ 556,143 | \$ 579,474 | \$ 575,034 | \$ 472,670 | \$ 411,380 | \$ 368,036 | \$ 2,962,737 | |

WSSC
FY 2019 HIGH PRIORITY ADDITIONAL & REINSTATED PROGRAM REQUESTS SUMMARY

Program: CREW LEADER IMPLEMENTATION

Request: 18 Crew Leaders

Cost including benefits: \$2,220,300, Water/Sewer Impact: \$2,220,300

Justification:

This request is to hire Crew Leaders (Crew Chiefs) to manage Maintenance Utility Technicians. The WSSC, at one time, had crew chiefs but eliminated those positions nearly 13 years ago.

Crew leaders are necessary to establish and maintain a continuum of accountability, safety awareness, and business control from the office to the field in the Zone Depots. The Utility Services Maintenance Utility Technicians currently operate without management supervision. The system of no management oversight is illusive and does not provide UST with the opportunity to exercise solid business systems control and the ability to manage the organization for operational efficiency.

Program: CUSTOMER SERVICE CENTER STAFFING INITIATIVE

Request: 8 Customer Service Advisors

Cost with benefits: \$748,000 Water/Sewer Impact: \$748,000 (\$248,000 after \$500,000 savings from LJ Ross contract)

Justification:

In an effort to support the top priority of customer service and continue the transformation into a world class customer service team the Customer Service Department examined feedback about customer service dissatisfaction expressed by both our internal and external customers.

Analyses revealed areas for improvement in our call handling specifically with our third-party vendor. In addition, a lack of regular systems testing and maintenance with the vendor has resulted in poor redundancy. To effectively address the myriad of issues and ongoing complaints the Senior Leadership Team has agreed to bring all customer service intake functions back "in-house".

The Department plans to phase out the use of LJ Ross call intake over the next two to three years for level 2 (all calls) and level one (bill payment) respectively and is requesting the approval to add eight (8) new Customer Service Advisor (CSA) positions to fortify the organizational structure and to begin call volume phasedown from LJ Ross.

The Department is on track to scale LJR resources down to level I (accepting and processing payments) by the end of this fiscal year, June 30, 2018.

The Department believes it is not in its best interest to train LJR staff on the new C2M system, but to manage the training of all resources in-house. While training in-house staff, temporary resources will be utilized to maintain normal business operations.

Program: CUSTOMER SERVICE CENTER OF EXCELLENCE

Request: 1 Business Analyst, 1 Training Specialist, 1 Quality Management Specialist

Cost including benefits: \$418,000 Water/Sewer Impact: \$418,000

Justification:

To support the top priority of customer service and continue the transformation into a world-class customer service team, a holistic approach across people, processes and technology is being undertaken to address a new strategy, organizational structure, systems, staffing, skills, and competencies. The Business Analyst would be dedicated to maintaining the CRM knowledge base and related analytics. The Training Specialist and the Quality Management Specialist would support employee coaching, enterprise change management, and performance management learning objectives for the Customer Service Department initiatives.

Program: BILLING & REVENUE PROTECTION**Request: 1 Business Analyst**

Cost with benefits: \$137,300 Water/Sewer Impact: \$137,300

Justification:

The Commission's billing and revenue operations represent are a key driver of revenue. To achieve a world class billing and revenue protection function process gaps across the enterprise meter-to-cash value chain must be resolved. Today customers continue to experience issues and gaps in our customer service delivery especially billing and payments. Therefore, we must transform our customer service operations to a world class organization.

Program: CUSTOMER SERVICE CENTER OF EXCELLENCE**Request: Professional Services**

Cost: \$2,000,000

Justification:

Pre and post implementation of Customer to Meter (C2M) is a priority for WSSC. A successful technological implementation will require at least 20% extra capacity to be prepared for the new C2M environment. Professional services are required for:

- Organizational readiness resources for educating, training, and documenting policies/standard operating procedures related to new systems for the Customer Service Department (C2M, Customer Relationship Management (CRM), Workforce Management, e-Interactive Voice Response System, Mobile Work Management/Work and Asset Management (MWM/WAM)) - \$450,000
- Additional temporary staff for pre and post implementation of C2M (billing and customer service resources) and MWM/WAM (dispatching, emergency services, and work order management) - \$750,000
 - Billing and Revenue Protection Division: (3) Account Specialists
 - Customer Care Division: (3) Customer Service and/or Project Specialists
 - Center of Excellence Division: (2) Analysts and (1) Training Specialist
- Customer experience and technology projects to be coordinated by Customer Service, IT and Oracle \$800,000
 - Funding to support any customer experience and 'must have' business projects and requirements not fulfilled by C2M (for example email services, and bill presentment/print)
 - CRM technology
 - Workforce Management technology

Program: JET TRUCK & SYSTEM FLUSHING TRAILERS OPTIMIZATION**Request: 4 Jet Trucks**

Cost: \$1,400,000, Water/Sewer Impact: \$200,000

Justification:

This request is to supply the Utility Services Team with one jet truck per depot, to effectively respond to after-hours sewer-related emergencies.

HIGH PRIORITY ADDITIONAL & REINSTATED DEFERRED IN FY18

Program: SYSTEM-WIDE FLUSHING

Request: 6 Workyears

Cost including benefits: \$627,900, Water/Sewer Impact: \$627,900

Justification:

Flushing is now done on an as-needed basis, i.e. someone complains about discolored water. WSSC responds and conducts an isolated flush of that particular water main. This program would be a systematic approach to flush the entire system. The spike in discolored water complaints in 2015 (up to 90 per day) resulted in WSSC taking action. Historically, WSSC receives fewer than 10 discolored water complaints per day. There was a flushing program in place over 15 years ago that was, unfortunately, discontinued. Clean pipes deliver better quality water and higher hydraulic efficiencies. Flushing is the easiest and cheapest method to maintain clean pipes (versus lining or replacement). Our performance goal is to have fewer than 0.2 discolored water complaints per 1,000 customers. Our past 5-year average is 2.9 per 1,000 customers. This is not world-class service.

With the workyear request, the goal is to complete 520 miles/year, with a 9-year cycle. Many jurisdictions with flushing programs recommend a 4 to 10-year cycle.

Program: LEAK DETECTION

Request: 2 Workyears

Cost including benefits: \$298,200, Water/Sewer Impact: \$296,200

Justification:

The Water Distribution and Water Transmission Program in Asset Management Program identified leak detection as a program to provide condition assessment of the water system. This program supports WSSC's strategic priorities by maintaining our infrastructure, supporting customer services and providing sound financial stewardship. By proactively repairing leaks before they become worse and potentially allow contaminants to enter the system, the program reduces additional costs and risks. Currently we only have three leak-detection crews performing leak surveys in the Gaithersburg, Lyttonsville and Temple Hills service area. Utility Services Central Zone does not have a leak detection crew. Leak detection will minimize lost revenue from otherwise unknown leaks.

Program: LARGE WATER VALVE CONDITION ASSESSMENT

Request: Services By Others

Cost including benefits: \$270,700, Water/Sewer Impact: \$270,700

Justification:

In order to minimize the risk associated with inoperable large valves and possible water outages, the Large Valve Inspection and Repair Program was initiated in April 2014 to systematically inspect, exercise, repair and replace (when necessary) large diameter valves located throughout the system. When the large valve program was established in 2014, the system inventory was listed at about 1,700 large valves and the condition assessment cycle was established at 4 years (425 valves per year). During the course of the initial condition assessment, the number of large valves was refined through data corrections. Currently, there are close to 1,500 large valves in the water transmission and distribution system. After conducting research, it was noted that the City of Baltimore inspects large valves on a 3-year cycle (16" thru 24") or a 2-year cycle (30" and larger). Further research suggests that Prince William County exercises large valves every 30 months. The City of Detroit spends \$4 million every 2-year for valve exercising. This is a request to increase the exercising frequency from 4 years to 3 years.

Program: FIRE HYDRANT TESTING**Request: 4 Utility Technicians**

Cost including benefits: \$307,600, Water/Sewer Impact: \$307,600

Justification:

Fire hydrant flow tests determine the flow rate and pressure in any location throughout a water company's underground water distribution system. Fire hydrants should be tested regularly to ensure that they are capable of providing water at an acceptable pressure and flow rate for public health and firefighting operations. In addition, it is also necessary to perform a flow test to properly design a fire sprinkler system for a commercial or residential structure.

WSSC has 43,000 fire hydrants in our system. AWWA recommends we test each hydrant on a 10-year cycle. Currently, we test approximately 200 hydrants per year. These tests are mainly generated at the request of contractors, engineers, and designers. Tests are also generated at the request of fire departments. Testing all hydrants on a 10-year cycle will help to ensure they will be effective for firefighting and preventing the contamination of public water supplies by backflow. Performing a fire-hydrant flow test provides the actual static (non-flowing) pressure, residual (flowing) pressure, and the flow from the hydrant.

Program: FORCE MAIN PLANNING INITIATIVE**Request: 1 Sr. Civil Engineer, 1 Civil Engineer**

Cost including benefits: \$250,000, Water/Sewer Impact: \$0

Justification:

The Commission does not have a program to address deficient sewer force mains in the system. Funding for this program would be to establish and execute a successful program.

Program: LARGE METER DESIGN**Request: 1 Project Manager**

Cost including benefits: \$150,200, Water/Sewer Impact: \$0

Justification:

Funding to increase the rehabilitation of large meters from 45 to 55 meters a year. The request is to begin the design portion of this program.

Fund Balance Analysis

| | Total |
|---|------------------------------|
| Water & Sewer Operating Fund Balance at end of FY'17 | \$ <u>189,956,000</u> |
| IT Strategic Plan | (10,980,000) |
| Strategic Energy Plan Implementation (5-Year FY16 A&R) | (200,000) |
| Climate Change Vulnerability Assessment (5-Year FY16 A&R) | <u>(400,000)</u> |
| Fund Balance (end of FY'18) | \$ <u>178,376,000</u> |
| IT Strategic Plan | (11,180,000) |
| Strategic Energy Plan Implementation (5-Year FY16 A&R) | (200,000) |
| Climate Change Vulnerability Assessment (5-Year FY16 A&R) | (200,000) |
| Fund Balance (end of FY'19) | <u>166,796,000</u> |
| FY20 Strategic Energy Plan Implementation (A&R) | (200,000) |
| FY20 Climate Change Vulnerability Assessment (A&R) | (100,000) |
| FY'20-'22 Balance IT Strategic Plan | <u>(36,000,000)</u> |
| Projected Fund Balance | \$ <u>130,496,000</u> |

REVENUES AND EXPENDITURES - IMPACT ON ADOPTED CHARGES
WATER AND SEWER PROGRAM COMBINED OPERATING FUNDS

Scenario: No \$6m Ops Improvement, \$125m CIP Deferral, \$4.9m Unspecified Reductions

| | (In Thousands \$000s) | FY 2018 Approved | FY 2019 Estimated | Dollar Change | W&S Rev Impact* |
|----|---|---------------------|----------------------|------------------|--------------------|
| 1 | OPERATING REVENUES | | | | |
| 2 | Adopted Water and Sewer Charges | \$ 600,902 | \$ 600,902 | \$ - | 0.0% |
| 3 | OPERATING EXPENSES | | | | |
| 4 | Salaries and Wages | \$ 120,276 | \$ 125,688 | \$ 5,412 | 0.9% |
| 5 | Heat, Light, and Power | 22,015 | 22,675 | 660 | 0.1% |
| 6 | Regional Sewage Disposal | 53,617 | 53,617 | - | 0.0% |
| 7 | All Other | 242,177 | 239,680 | (2,496) | -0.5% |
| 8 | Operational Improvements | - | - | - | 0.0% |
| 9 | DEBT SERVICE | 257,071 | 277,108 | 20,037 | 3.3% |
| 10 | PAYGO (Contribution to bond fund) | 30,193 | 35,942 | 5,749 | 1.0% |
| 11 | | \$ 725,348 | \$ 754,711 | \$ 29,363 | 4.8% |
| 12 | REVENUES | | | | |
| 13 | Other Sources and Fees | (104,466) | (104,738) | (272) | 0.0% |
| 14 | OTHER TRANSFERS AND CREDITS | (19,980) | (27,968) | (7,988) | -1.3% |
| 15 | Total - Water & Sewer Revenue Need | \$ 600,902 | \$ 622,005 | \$ 21,103 | 3.5% |

16 *Approximately \$6 million in additional operating expenses = 1 percent increase in revenue

| | FY 2019 Estimated** | W&S Rev Impact | |
|----|---|-------------------|-------|
| 17 | Potential Offsets to Revenue Increase: | | |
| 18 | \$50 million CIP Reduction = Debt Service Impact @ 5% Interest | \$ (1,626) | -0.3% |
| 19 | \$100 million CIP Reduction = Debt Service Impact @ 5% Interest | \$ (3,253) | -0.5% |
| 20 | \$125 million CIP Reduction = Debt Service Impact @ 5% Interest | \$ (4,066) | -0.7% |

21 Notable Assumptions:

22 4.5% increase in Salaries & Wages FY 2019 through FY 2024

23 1.0% increase in All Other FY 2019; 2.0% remains for outer years

24 \$6 million A&R for Operational Improvements has been removed.

25 92% completion factor for CIP; 100% for Information Only (including Reconstruction)

26 **Debt service impact on new bond issuance assumes only one payment (or half year) in FY 2019. Outer year impact would
 27 be double the amounts shown.

FINANCIAL FORECAST FOR WATER AND SEWER OPERATING FUNDS

Scenario (Revenue Increase: Water and Sewer +3.5%; Expense Growth: 3.9%; Debt Service Expense: \$277m/\$421m New Bond Issue)

| | FY 2018 | FY 2019 | FY 2020** | FY 2021 | FY 2022 | FY 2023 | FY 2024 |
|---|------------|------------|------------|------------|------------|------------|--------------|
| (In Thousands \$000s) | Approved | Estimated | Projected | Projected | Projected | Projected | Projected |
| 1 SUMMARY | | | | | | | |
| 2 New Water and Sewer Debt Issues | \$ 522,825 | 421,879 | 536,394 | 519,803 | 423,105 | 366,167 | 325,611 |
| 3 Total Water and Sewer Debt Service | 257,071 | 277,108 | 311,708 | 344,370 | 367,787 | 388,582 | 408,683 |
| 4 Total Water and Sewer Expenditures | 725,348 | 754,711 | 821,504 | 874,483 | 916,937 | 956,248 | 994,631 |
| 5 Water and Sewer Combined Increase (Average) | 3.5% | 3.5% | 10.1% | 6.4% | 4.5% | 3.8% | 4.1% |
| 6 REVENUE | | | | | | | |
| 7 OPERATING REVENUE - Base Case Level | \$ 705,368 | \$ 742,743 | \$ 816,188 | \$ 871,266 | \$ 915,821 | \$ 956,533 | \$ 1,000,914 |
| 8 Water and Sewer Revenue Change From Base Case | | (17,000) | (10,164) | (10,165) | (10,164) | (10,165) | (10,165) |
| 9 Other Revenue Adjustments | | | | | | | |
| 10 Subtotal with Adjustments | 705,368 | 725,743 | 806,023 | 861,101 | 905,657 | 946,368 | 990,749 |
| 11 OTHER CREDITS AND TRANSFERS - Base Case Level | 8,400 | 16,388 | 15,480 | 13,381 | 11,280 | 9,879 | 3,882 |
| 12 Fund Balance Contribution/Other | 11,580 | 11,580 | - | - | - | - | - |
| 13 Adjustment #1 | | | | | | | |
| 14 Subtotal with Adjustments | 11,580 | 11,580 | - | - | - | - | - |
| 15 Total Funds Available | 725,348 | 753,711 | 821,503 | 874,482 | 916,937 | 956,247 | 994,631 |
| 16 Yearly Growth | n/a | 3.9% | 9.0% | 6.4% | 4.9% | 4.3% | 4.0% |
| 17 OPERATING | | | | | | | |
| 18 OPERATING EXPENSES - Base Case Level | \$ 438,084 | \$ 452,579 | \$ 465,911 | \$ 477,635 | \$ 489,747 | \$ 502,264 | \$ 515,199 |
| 19 Eliminate Operational Improvem'ts (A&R) | | (6,000) | | | | | |
| 20 Unspecified Adjustments | | (4,918) | | | | | |
| 21 Adjustment #3 | | | | | | | |
| 22 Adjustment #4 | | | | | | | |
| 23 Unspecified Adjustments | | | | | | | |
| 24 Subtotal with Adjustments | 438,084 | 441,661 | 465,911 | 477,635 | 489,747 | 502,264 | 515,199 |
| 25 DEBT SERVICE - Base Case Level | 257,071 | 281,174 | 319,840 | 352,501 | 375,919 | 396,713 | 416,814 |
| 26 \$125 million CIP Deferral | | (\$4,066) | (8,131) | (8,131) | (8,131) | (8,131) | (8,131) |
| 27 Adjustment #2 | | | | | | | |
| 28 Adjustment #3 | | | | | | | |
| 29 Subtotal with Adjustments | 257,071 | 277,108 | 311,708 | 344,370 | 367,787 | 388,582 | 408,683 |
| 30 PAYGO (Contribution to bond fund) - Base Case Level | 30,193 | 36,958 | 45,917 | 54,511 | 61,436 | 67,435 | 72,782 |
| 31 \$125 million CIP Deferral (25% PAYGO) | | (1,016) | (2,033) | (2,033) | (2,033) | (2,033) | (2,033) |
| 32 Subtotal with Adjustments | 30,193 | 35,942 | 43,884 | 52,478 | 59,403 | 65,402 | 70,749 |
| 33 Total Expenditures | 725,348 | 754,711 | 821,504 | 874,483 | 916,937 | 956,248 | 994,631 |
| 34 Yearly Growth | n/a | 4.0% | 8.9% | 6.4% | 4.9% | 4.3% | 4.0% |
| 35 | | | | | | | |
| 36 Net Revenue (Loss) | 0 | (1,000) | (0) | (0) | (0) | (0) | (0) |
| 37 | | | | | | | |
| 38 BEGINNING FUND BALANCE - JULY 1 | \$ 189,956 | \$ 178,376 | \$ 165,796 | \$ 165,795 | \$ 165,795 | \$ 165,794 | \$ 165,794 |
| 39 Net Increase (Decrease) In Fund Balance | 0 | (1,000) | (0) | (0) | (0) | (0) | (0) |
| 40 Use of Fund Balance/Other Adjustments | (11,580) | (11,580) | - | - | - | - | - |
| 41 ENDING FUND BALANCE - JUNE 30 | \$ 178,376 | \$ 165,796 | \$ 165,795 | \$ 165,795 | \$ 165,794 | \$ 165,794 | \$ 165,793 |
| 42 Debt Service Coverage | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 |
| 43 Debt Service as a Percentage of Total Expenditures (Below 40% is target) | 35.4% | 36.7% | 37.9% | 39.4% | 40.1% | 40.6% | 41.1% |
| 44 Operating Reserve Required 10% Level (\$) | \$70,537 | \$72,574 | \$80,602 | \$86,110 | \$90,566 | \$94,637 | \$99,075 |
| 45 Days Cash-on-Hand Operating Reserve (60 to 90 DCOH target) | 91.4 | 81.6 | 74.8 | 70.2 | 66.9 | 64.2 | 61.6 |
| 46 Total Workyears (All Funds) | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 | 1,776.0 |

REVENUES AND EXPENDITURES - IMPACT ON ADOPTED CHARGES

WATER AND SEWER PROGRAM COMBINED OPERATING FUNDS

Scenario: No \$6m Ops Improvement, \$0m CIP Deferral, \$0m Unspecified Reduction

| | | FY 2018 | FY 2019 | Dollar | W&S Rev |
|-----------------------|---|-------------------|-------------------|------------------|-------------|
| (In Thousands \$000s) | | Approved | Estimated | Change | Impact* |
| 1 | OPERATING REVENUES | | | | |
| 2 | Adopted Water and Sewer Charges | \$ 600,902 | \$ 600,902 | \$ - | 0.0% |
| 3 | OPERATING EXPENSES | | | | |
| 4 | Salaries and Wages | \$ 120,276 | \$ 125,688 | \$ 5,412 | 0.9% |
| 5 | Heat, Light, and Power | 22,015 | 22,675 | 660 | 0.1% |
| 6 | Regional Sewage Disposal | 53,617 | 53,617 | - | 0.0% |
| 7 | All Other | 242,177 | 244,598 | 2,422 | 0.4% |
| 8 | Operational Improvements | - | - | - | 0.0% |
| 9 | DEBT SERVICE | 257,071 | 281,174 | 24,103 | 4.0% |
| 10 | PAYGO (Contribution to bond fund) | 30,193 | 36,958 | 6,765 | 1.1% |
| 11 | | \$ 725,348 | \$ 764,711 | \$ 39,363 | 6.6% |
| 12 | REVENUES | | | | |
| 13 | Other Sources and Fees | (104,466) | (104,738) | (272) | 0.0% |
| 14 | OTHER TRANSFERS AND CREDITS | (19,980) | (27,968) | (7,988) | -1.3% |
| 15 | Total - Water & Sewer Revenue Need | \$ 600,902 | \$ 632,005 | \$ 31,103 | 5.2% |

16 *Approximately \$6 million in additional operating expenses = 1 percent increase in revenue

| | | FY 2019 | W&S Rev |
|----|---|-------------|---------|
| | | Estimated** | Impact |
| 17 | Potential Offsets to Revenue Increase: | | |
| 18 | \$50 million CIP Reduction = Debt Service Impact @ 5% Interest | \$ (1,626) | -0.3% |
| 19 | \$100 million CIP Reduction = Debt Service Impact @ 5% Interest | \$ (3,253) | -0.5% |
| 20 | \$125 million CIP Reduction = Debt Service Impact @ 5% Interest | \$ (4,066) | -0.7% |

21 **Notable Assumptions:**

22 4.5% increase in Salaries & Wages FY 2019 through FY 2024

23 1.0% increase in All Other FY 2019; 2.0% remains for outer years

24 \$6 million A&R for Operational Improvements has been removed.

25 92% completion factor for CIP; 100% for Information Only (Including Reconstruction)

26 **Debt service impact on new bond issuance assumes only one payment (or half year) in FY 2019. Outer year impact would
27 be double the amounts shown.

REVENUES AND EXPENDITURES - IMPACT ON ADOPTED CHARGES

WATER AND SEWER PROGRAM COMBINED OPERATING FUNDS

Scenario: No \$6m Ops Improvement, \$0m CIP Deferral, \$0m Discretionary Reduction

| | | (In Thousands \$000s) | FY 2018 Approved | FY 2019 Estimated | Dollar Change | W&S Rev Impact* |
|----|---|-----------------------|---------------------|----------------------|------------------|--------------------|
| 1 | OPERATING REVENUES | | | | | |
| 2 | Adopted Water and Sewer Charges | | \$ 600,902 | \$ 600,902 | \$ - | 0.0% |
| 3 | OPERATING EXPENSES | | | | | |
| 4 | Salaries and Wages | | \$ 120,276 | \$ 125,688 | \$ 5,412 | 0.9% |
| 5 | Heat, Light, and Power | | 22,015 | 22,675 | 660 | 0.1% |
| 6 | Regional Sewage Disposal | | 53,617 | 53,617 | - | 0.0% |
| 7 | All Other | | 242,177 | 244,598 | 2,422 | 0.4% |
| 8 | Operational Improvements | | - | - | - | 0.0% |
| 9 | DEBT SERVICE | | 257,071 | 281,174 | 24,103 | 4.0% |
| 10 | PAYGO (Contribution to bond fund) | | 30,193 | 36,958 | 6,765 | 1.1% |
| 11 | | | \$ 725,348 | \$ 764,711 | \$ 39,363 | 6.6% |
| 12 | REVENUES | | | | | |
| 13 | Other Sources and Fees | | (104,466) | (104,738) | (272) | 0.0% |
| 14 | OTHER TRANSFERS AND CREDITS | | (19,980) | (27,968) | (7,988) | -1.3% |
| 15 | Total - Water & Sewer Revenue Need | | \$ 600,902 | \$ 632,005 | \$ 31,103 | 5.2% |

16 *Approximately \$6 million in additional operating expenses = 1 percent increase in revenue

| | | FY 2019 Estimated** | W&S Rev Impact |
|----|---|------------------------|-------------------|
| 17 | Potential Offsets to Revenue Increase: | | |
| 18 | \$50 million CIP Reduction = Debt Service Impact @ 5% Interest | \$ (1,626) | -0.3% |
| 19 | \$100 million CIP Reduction = Debt Service Impact @ 5% Interest | \$ (3,253) | -0.5% |
| 20 | \$125 million CIP Reduction = Debt Service Impact @ 5% Interest | \$ (4,066) | -0.7% |

21 Notable Assumptions:

22 4.5% Increase in Salaries & Wages FY 2019 through FY 2024

23 1.0% Increase in All Other FY 2019; 2.0% remains for outer years

24 \$6 million A&R for Operational Improvements has been removed.

25 92% completion factor for CIP; 100% for Information Only (Including Reconstruction)

26 **Debt service impact on new bond issuance assumes only one payment (or half year) in FY 2019. Outer year impact would
27 be double the amounts shown.

| | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1 BILLING FACTOR | | | | | | | |
| 2 Calculated (w Impact of revenue adjustments): | Approved | Estimated | Projected | Projected | Projected | Projected | Projected |
| 3 Water and Sewer Combined: | | | | | | | |
| 4 Billing Factor - at 1 MGD (In 000s) | 10.03846 | 10.55805 | 11.88182 | 12.79853 | 13.53943 | 14.21612 | 14.95409 |
| 5 Total Charges: | \$600,902 | \$632,005 | \$711,246 | \$766,120 | \$810,470 | \$850,977 | \$895,152 |
| 6 Water: | | | | | | | |
| 7 Water to be supplied (Average MGD) | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 |
| 8 Yearly Growth % | n/a | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| 9 Billing Factor - Water at 1 MGD (In 000s) | 4.46175 | 4.72154 | 5.38343 | 5.84178 | 6.21223 | 6.55058 | 6.91956 |
| 10 Total Water Consumption Charges: | \$267,080 | \$282,632 | \$322,252 | \$349,689 | \$371,864 | \$392,118 | \$414,205 |
| 11 Sewer: | | | | | | | |
| 12 Sewer to be treated (Average MGD) | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 | 164.0 |
| 13 Yearly Growth % | n/a | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| 14 Billing Factor - Sewer at 1 MGD (In 000s) | 5.57672 | 5.83651 | 6.49840 | 6.95675 | 7.32720 | 7.66554 | 8.03453 |
| 15 Total Sewer Use Charges: | \$333,822 | \$349,374 | \$388,994 | \$416,431 | \$438,606 | \$458,860 | \$480,947 |
| 16 ESTIMATED IMPACT OF INCREASE ON RESIDENTIAL MONTHLY BILL | | | | | | | |
| 17 At 160 GPD usage | n/a | \$3.01 | \$6.96 | \$5.21 | \$4.21 | \$3.85 | \$4.19 |
| 18 At 137 GPD usage | n/a | \$2.26 | \$5.23 | \$3.91 | \$3.16 | \$2.89 | \$3.15 |
| 19 At 100 GPD usage | n/a | \$1.65 | \$3.81 | \$2.86 | \$2.31 | \$2.11 | \$2.30 |

Note: Data input required where font is blue

REVENUES AND EXPENDITURES - IMPACT ON ADOPTED CHARGES
WATER AND SEWER PROGRAM COMBINED OPERATING FUNDS

Scenario: No \$6m Ops Improvement, \$111m CIP Deferral, \$3.4m Unspecified Reduction

| | (In Thousands \$000s) | FY 2018 Approved | FY 2019 Estimated | Dollar Change | W&S Rev Impact* |
|----|---|---------------------|----------------------|------------------|--------------------|
| 1 | OPERATING REVENUES | | | | |
| 2 | Adopted Water and Sewer Charges | \$ 600,902 | \$ 600,902 | \$ - | 0.0% |
| 3 | OPERATING EXPENSES | | | | |
| 4 | Salaries and Wages | \$ 120,276 | \$ 125,688 | \$ 5,412 | 0.9% |
| 5 | Heat, Light, and Power | 22,015 | 22,675 | 660 | 0.1% |
| 6 | Regional Sewage Disposal | 53,617 | 53,617 | - | 0.0% |
| 7 | All Other | 242,177 | 242,044 | (132) | 0.0% |
| 8 | Operational Improvements | - | - | - | 0.0% |
| 9 | DEBT SERVICE | 257,071 | 277,564 | 20,493 | 3.4% |
| 10 | PAYGO (Contribution to bond fund) | 30,193 | 36,055 | 5,862 | 1.0% |
| 11 | | \$ 725,348 | \$ 757,644 | \$ 32,296 | 5.4% |
| 12 | REVENUES | | | | |
| 13 | Other Sources and Fees | (104,466) | (104,738) | (272) | 0.0% |
| 14 | OTHER TRANSFERS AND CREDITS | (19,980) | (27,968) | (7,988) | -1.3% |
| 15 | Total - Water & Sewer Revenue Need | \$ 600,902 | \$ 624,939 | \$ 24,036 | 4.0% |

16 *Approximately \$6 million in additional operating expenses = 1 percent increase in revenue

| | FY 2019 Estimated** | W&S Rev Impact | |
|----|---|-------------------|-------|
| 17 | Potential Offsets to Revenue Increase: | | |
| 18 | \$50 million CIP Reduction = Debt Service Impact @ 5% Interest | \$ (1,626) | -0.3% |
| 19 | \$100 million CIP Reduction = Debt Service Impact @ 5% Interest | \$ (3,253) | -0.5% |
| 20 | \$125 million CIP Reduction = Debt Service Impact @ 5% Interest | \$ (4,066) | -0.7% |

21 Notable Assumptions:

- 22 4.5% increase in Salaries & Wages FY 2019 through FY 2024
- 23 1.0% increase in All Other FY 2019; 2.0% remains for outer years
- 24 \$6 million A&R for Operational Improvements has been removed.
- 25 \$14 million for Advanced Metering Infrastructure was added back to FY 2019 Capital Budget.
- 26 92% completion factor for CIP; 100% for Information Only (including Reconstruction)

27 **Debt service impact on new bond issuance assumes only one payment (or half year) in FY 2019. Outer year impact would
 28 be double the amounts shown.

Assumptions:

1. The FY 2019-2024 projections reflect WSSC's multi-year forecast and assumptions. The projected expenditures, revenues, and fund balances for these years may be based on changes to rates, fees, usage, inflation, future labor agreements, and other factors not assumed in the Approved Budget FY 2018. Data excludes General Construction Debt Service and General Construction Bonds.
2. The FY 2018 and prior spending affordability results are the values for the four spending affordability parameters as approved jointly by Montgomery and Prince George's counties. The FY 2018 spending affordability results are the values of the spending affordability parameters associated with WSSC's Approved Budget FY 2018. The FY 2019-2024 spending affordability figures correspond to the values of the various spending affordability parameters and assumptions.
3. Debt service for bonds and notes includes Maryland Water Quality Bonds and interfund debt service transfers. General Construction debt service is excluded.
4. Revenue/Unspecified Adjustments assumes a 12 month impact (commence on July 1st).
5. Debt Service Coverage = Operating Revenues less Operating Expenses (excluding Debt Service) divided by the debt service on bonds and notes.
6. Operating Reserve represents 10 percent of Operating Revenue.

**FY'19 WSSC Multi-Year Financial Forecast
Summary**

| Forecast Scenario | PAYGO | Additional & Reinstated | Use of Fund Balance Climate Change | Use of Fund Balance Strategic Energy plan | Use of Fund Balance IT Strategic Plan | Total Use of Fund Balance | Debt Service Reductions | Unspecified Reductions | Rate |
|---|--------|-------------------------|------------------------------------|---|---------------------------------------|---------------------------|-------------------------|------------------------|------|
| Scenario 1 - Base Case - Status Quo -No Additional & Reinstated (A&R) | 36,958 | | 200 | 200 | 11,180 | 11,580 | | | 5.2% |
| Scenario 2 - Base Case - A&R Operational Improvements | 36,958 | 6,000 | 200 | 200 | 11,180 | 11,580 | | | 6.2% |
| Scenario 3 - No A&R, CIP Deferrals, Debt Service and Unspecified Reductions | 35,942 | | 200 | 200 | 11,180 | 11,580 | (4,066) | (5,918) | 3.5% |

Scenario 3 is not recommended by WSSC.

Fund Balance Analysis

| | Total |
|---|------------------------------|
| Water & Sewer Operating Fund Balance at end of FY'17 | <u>\$ 189,956,000</u> |
| IT Strategic Plan | (10,980,000) |
| Strategic Energy Plan Implementation (5-Year FY16 A&R) | (200,000) |
| Climate Change Vulnerability Assessment (5-Year FY16 A&R) | <u>(400,000)</u> |
| Fund Balance (end of FY'18) | <u>\$ 178,376,000</u> |
| IT Strategic Plan | (11,180,000) |
| Strategic Energy Plan Implementation (5-Year FY16 A&R) | (200,000) |
| Climate Change Vulnerability Assessment (5-Year FY16 A&R) | (200,000) |
| Fund Balance (end of FY'19) | <u>166,796,000</u> |
| FY'20 Strategic Energy Plan Implementation (A&R) | (200,000) |
| FY'20 Climate Change Vulnerability Assessment (A&R) | (100,000) |
| FY'20-'24 Balance IT Strategic Plan | <u>(36,000,000)</u> |
| Projected Fund Balance | <u>\$ 130,496,000</u> |